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basic imagery interpretation report

## Soviet Mobile Missile Summary



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**DEPLOYED STRATEGIC SSM FACILITIES**

**BE: Various**

**USSR**

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**SOVIET MOBILE MISSILE SUMMARY**

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**SUMMARY**

1. (TSR) This report updates information in a previous NPIC report, [ ] on SS-20 mobile IRBM bases. This report also includes a synopsis of significant mobile missile activity seen at two offensive missile test centers, three production facilities, a research/training facility, and several command and control facilities in the USSR.

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2. (TSR) Significant activity was observed in deployed areas during this reporting period. A new mobile base was identified, evidence of SS-20 warhead mating was observed at deployed bases, two sizes of warhead canisters were identified as being associated with the SS-20 missile, mockup single-bay and three-bay garages were constructed, SS-20 transporter-erector-launcher leveling-jack imprints were seen at three bases, and nine field training exercises were observed. An R-412 tower-mounted troposcatter antenna was field deployed in the General Support Area at Kapustin Yar Missile/Space Test Center SSM; construction was resumed on the foundation of the high, two-bay payload handling building at Plesetsk; and components for 27 single-bay garages were manufactured at Bryansk Guided Missile Support Equipment Plant II.

3. (U) This reporting period extends from [ ] Included in the report are a location map, ten annotated photographs, and four tables.

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**DISCUSSION****Mobile Missile Deployment**

4. (TSR) During the reporting period, construction was begun on a new SS-20 base. As of [ ] 18 of the 26 bases (Figure 1) were in the late stage of construction or were complete. The 26 bases, including the Remote Site at Drovyanyaya, will eventually contain a total of 237 single-bay, sliding-roof garages available for housing SS-20 missiles on launchers. The bases are distributed in the following geographic regions: nine bases are in the western section of the USSR (Belorussia); seven are in the Ural mountain region; four are in the western section of Siberia; and six are in the eastern section of Siberia.

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**Construction of Mobile Missile Bases**

5. (TSR) A new base, designated Verkhnyaya Salda Mobile IRBM Base 4 (Figure 2) was identified on [ ] at Verkhnyaya Salda SSM Launch Position (LP) 1 [ ] a dismantled type IIA SS-7 ICBM launch site. The base was in the very early stage of construction. Footings were observed for two single-bay garages and one unidentified support building. Clearings had also been made for additional perimeter security. This is the fourth mobile base to be constructed in the Verkhnyaya Salda division of the Orenburg Strategic Rocket Forces (SRF) Army, bringing the total number of SS-20 mobile bases in the USSR to 26 (Table 1).

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**Recent Developments at the Deployed Bases**

6. (TSR) The Soviets have begun constructing mockups of single-bay and three-bay garages at Drovyanyaya Mobile IRBM Bases 1, 2, and 3 (Figure 3). The mockup garages were first seen under construction 0.3 nautical miles (nm) from Mobile Base 3 on [ ] similar mockups for a single-bay garage were seen under construction in the operations area of Mobile Bases 1 and 2. The mockups will most likely be used to train crews to park the larger SS-20-associated vehicles.

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7. (TSR) Three sets of transporter-erector-launcher (TEL) leveling-jack imprints were seen on a snow-covered road within the operations area of Yurya Mobile IRBM Base 1 on [ ] This was the earliest in the construction phase of a mobile base that evidence has been seen of the presence of SS-20 launch equipment. Also, Yurya is the first deployed SS-20 base at which TEL signatures have been seen in the operations area. The base was identified in the very early stage of construction in April 1978. By November, the operations area appeared to be complete, although the support area and payload handling facility were still under construction. The presence of the TEL imprints prior to the completion of the entire base suggests that the Soviets will probably maintain the TELs and possibly the missiles in the sliding-roof garages after construction of the operations area has been completed. It is uncertain if the warhead would be present prior to completion of the payload handling facility.

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8. (TSR) Analysis of imagery showing SS-20 leveling-jack imprints at Kapustin Yar Missile/Space Test Center SSM since October 1978 led to the identification of imprints at Novosibirsk Rail-to-Road Transfer Point (RTP) in April 1979 and resulted in subsequent identifications at Verkhnyaya Salda Mobile Base 2 on [ ] and at Yurya Mobile Base 1 and Drovyanyaya Mobile Base 3 on [ ]

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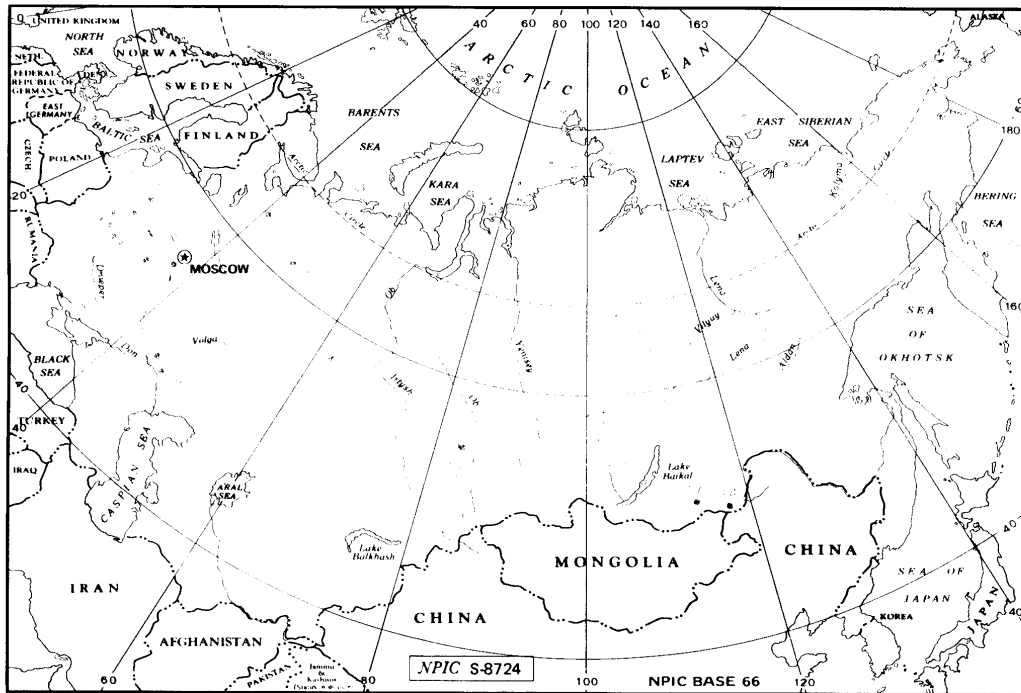


FIGURE 1. LOCATIONS OF SS-16/-20 ACTIVITY, USSR

| Item | Installation Name                                    | BE No |
|------|--|-------|
| 1    | Polotsk Mobile IRBM Base 1                           |       |
|      | Polotsk Mobile IRBM Base 2                           |       |
| 2    | Postavy Mobile IRBM Base                             |       |
| 3    | Smorgon Mobile IRBM Base 1                           |       |
|      | Smorgon Mobile IRBM Base 2                           |       |
| 4    | Minsk Motor Vehicle and Guided Missile Support Plant |       |
| 5    | Kozhanovichi Mobile IRBM Base                        |       |
| 6    | Konkovichi Mobile IRBM Base                          |       |
| 7    | Mozyr Mobile IRBM Base/Training Facility             |       |
| 8    | Rechitsa Mobile IRBM Base                            |       |
| 9    | Bryansk Guided Missile Support Equipment Plant II    |       |
| 10   | Serpukhov SSM Engineering Research Training Facility |       |
| 11   | Plesetsk Missile/Space Test Center SSM               |       |
| 12   | Yurya Mobile IRBM Base 1                             |       |
|      | Yurya Mobile IRBM Base 2                             |       |
|      | Yurya Mobile IRBM Base 3                             |       |
| 13   | Volgograd Steel and Machinery Plant                  |       |
|      | Krasnyy Barricada 221                                |       |
| 14   | Kapustin Yar Missile/Space Test Center SSM           |       |
| 15   | Verkhnyaya Salda Mobile IRBM Base 1                  |       |
|      | Verkhnyaya Salda Mobile IRBM Base 2                  |       |
|      | Verkhnyaya Salda Mobile IRBM Base 3                  |       |
|      | Verkhnyaya Salda Mobile IRBM Base 4                  |       |
| 16   | Novosibirsk Mobile IRBM Base 1                       |       |
|      | Novosibirsk Mobile IRBM Base 2                       |       |
|      | Novosibirsk Mobile IRBM Base 3                       |       |
|      | Novosibirsk Mobile IRBM Base 4                       |       |
| 17   | Drovyanaya Mobile IRBM Base 1                        |       |
|      | Drovyanaya Mobile IRBM Base 2                        |       |
|      | Drovyanaya Mobile IRBM Base 3                        |       |
|      | Drovyanaya Mobile IRBM Base 4                        |       |
|      | Drovyanaya Mobile IRBM Base 5                        |       |
| 18   | Olovyannaya Mobile IRBM Base 1                       |       |

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9. (TSR) The TEL imprints seen at Drovyanaya Mobile Base 3 were unique compared to the commonly seen configurations of imprints in that several of the imprints were square rather than circular. On imagery of [ ] it appeared that at least a portion of these imprints was being dug out by soldiers with shovels.

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10. (TSR) On [ ] vehicle tracks and rectangular snow melt patterns were seen in three separate clearings 0.5 nm south of Drovyanaya Remote Site 1 [ ]. Four snow melt patterns, apparently caused by parked vehicles (Figure 4—three on graphic) show a close similarity to SS-20 vehicle signatures left at Drovyanaya RTP. This evidence suggests that SS-20 activity was conducted at the remote site at Drovyanaya.

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11. (TSR) Probable SS-20 missile packaging materials have been identified at operational regiments in six of the SS-20 divisions. The materials believed associated with each missile consist of a [ ] probable canister end cap and two [ ] half-cylinder probable canister inserts (Figure 5). These materials are most likely used to protect the missile during its initial shipment to the base and are removed prior to the mating of the warhead.

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12. (TSR) The packaging materials were first seen during what appeared to be a warhead-mating exercise in the operations and support areas of the Mozyr Mobile IRBM Base/Training Facility. On [ ] tents were erected at two of the three battalion areas within the operations area. By [ ] a probable warhead canister was lying open on the ground in front of a single-bay garage and near the tents in one of the battalion areas. On imagery of [ ] the tents and warhead canister had been removed, but the packaging materials remained.

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13. (TSR) On [ ] another SS-20-related exercise was observed at Mozyr between the [ ] and the helicopter pad. During that time, five drive-in revetments were occupied by identified camouflaged equipment, and a tent had been erected in a sixth revetment. At least one set of the packaging material had been discarded into a seventh revetment. The presence of the packaging materials at a field training exercise suggests that the Soviets have the capability to mate the SS-20 warhead while it is field deployed.

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14. (TSR) Two sizes of probable warhead canisters have been identified as being associated with the SS-20 (Figure 6). Since 1977, two types of warhead canisters have been seen at the [ ] facilities of seven SS-20 bases, at the Kapustin Yar Missile/Space Test Center SSM, and at the Serpukhov SSM Engineering/Training Facility. The canisters are about [ ]. The

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Table 1. Summary of SS-20 Construction at Deployed Areas This table in its entirety is classified TOP SECRET RUFF

|                                | SSM Installation Name                    | First Identified | OPERATIONS AREA            |      |                       |      |                        |      | Construction and/or Modifications Complete | GENERAL SUPPORT AREA                          |   |   |                                       |     |     | Status of Construction at RTP | Remarks/Comments  |  |  |
|--------------------------------|--|------------------|----------------------------|------|-----------------------|------|------------------------|------|--|---|---|---|---------------------------------------|-----|-----|-------------------------------|---|--|--|
|                                |  |                  | Single-Bay Garage Complete | Udon | 3-Bay Garage Complete | Udon | 11-Bay Garage Complete | Udon |  | 11-Bay Garage 166 x 19m Construction Complete | Tech Support Bldg Construction Complete | High Two-Bay Bldg Construction Complete | Clerestory Bldg Construction Complete |     |     |                               |   |  |  |
| EASTERN USSR                   | Drovyanskaya Mobile IRBM Base 1          | Jul 76           | 9                          | --   | 3                     | --   | 1                      | --   | Yes  | 1   | Yes                                     | 0*                                      | --                                    | 0*  | --  | 0*                            | --  | Technical support bldg complete  | Personnel shelters udon near athletic field mockup sliding-roof and 3-bay garage                     |
|                                | Drovyanskaya Mobile IRBM Base 2          | Feb 77           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 2   | Yes                                     | 0                                       | --                                    | 0   | --  | 0                             | --  | Personnel shelters udon in support area  | 2 admin/personnel bldgs udon in support area   |
|                                | Drovyanskaya Mobile IRBM Base 3          | Nov 77           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 2   | Yes                                     | 0                                       | --                                    | 0   | --  | 0                             | --  | Temporary construction support area being raised; mockup sliding-roof and 3-bay garage | Personnel shelters udon near support area  |
|                                | Drovyanskaya Mobile IRBM Base 4          | Nov 78           | 0                          | 8    | 0                     | 3    | 0                      | --   | No   | 2   | No                                      | 0                                       | --                                    | 0   | --  | 0                             | --  | 3 und multi-bay garages udon near support  | 2 SS-11 canisters in support area  |
|                                | Drovyanskaya Mobile IRBM Base 5          | Apr 79           | 9                          | --   | 3                     | --   | 0                      | --   | No   | 1   | Yes                                     | 0                                       | --                                    | 0   | --  | 0                             | --  |  |  |
|                                | Drovyanskaya Remote Site 1               | Aug 79           | 3                          | --   | --                    | --   | --                     | --   | Yes  | --  | --                                      | --                                      | --                                    | --  | --  | --                            | --  | 2 open-sided sheds & 2 personnel bldgs   |  |
|                                | Olovyanaya Mobile IRBM Base 1            | May 79           | 0                          | 9    | 0                     | 3    | 0                      | 0    | No   | 0   | 0                                       | 0                                       | --                                    | 0   | --  | 0                             | --  |  |  |
| CENTRAL USSR                   | Novosibirsk Mobile IRBM Base 1           | Jan 77           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 2   | Yes                                     | 0*                                      | --                                    | 0*  | --  | 0*                            | --  | Complete   |  |
|                                | Novosibirsk Mobile IRBM Base 2           | Dec 77           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 2   | Yes                                     | 0                                       | --                                    | 0   | --  | 0                             | --  |  | Two 11-bay garages end-to-end in support area  |
|                                | Novosibirsk Mobile IRBM Base 3           | Jun 78           | 9                          | --   | 3                     | --   | 0                      | --   | No   | 2   | Yes                                     | 0                                       | --                                    | 0   | --  | 0                             | --  |  |  |
|                                | Novosibirsk Mobile IRBM Base 4           | Dec 79           | 0                          | 6    | 0                     | 2    | 0                      | --   | No   | 1   | No                                      | 0                                       | --                                    | --  | --  | --                            | --  |  |  |
|                                | Verkhnyaya Salda Mobile IRBM Base 1      | Feb 78           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 2   | Yes                                     | 0*                                      | --                                    | 0*  | --  | 0*                            | --  | Clerestory in late stage of construction; <div></div>                                  | 2 personnel/admin bldgs udon in support area   |
|                                | Verkhnyaya Salda Mobile IRBM Base 2      | Jan 79           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 2   | Yes                                     | 0                                       | --                                    | 0   | --  | 0                             | --  |  |  |
|                                | Verkhnyaya Salda Mobile IRBM Base 3      | Nov 79           | 0                          | 7    | 0                     | 2    | --                     | --   | No   | 1   | No                                      | --                                      | --                                    | --  | --  | --                            | --  |  |  |
|                                | Verkhnyaya Salda Mobile IRBM Base 4      | Mar 80           | 0                          | 2    | 0                     | 0    | 0                      | 0    | No   | 0   | --                                      | --                                      | --                                    | --  | --  | --                            | --  |  |  |
|                                | Yurya Mobile IRBM Base 1                 | Apr 78           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 1   | Yes                                     | 0*                                      | --                                    | 0*  | --  | 0*                            | --  |  |  |
|                                | Yurya Mobile IRBM Base 2                 | Jan 79           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 2   | Yes                                     | 0                                       | --                                    | 0   | --  | 0                             | --  | Clerestory in late stage of construction; <div></div>                                  |  |
|                                | Yurya Mobile IRBM Base 3                 | Dec 79           | 0                          | 6    | 0                     | 2    | 0                      | 0    | No   | --  | --                                      | --                                      | --                                    | --  | --  | --                            | --  |  |  |
|                                | Korkovichi Mobile IRBM Base              | Nov 75           | 9                          | --   | 3                     | --   | 1                      | --   | Yes  | 2   | Yes                                     | 1                                       | Yes                                   | 1   | Yes | 1                             | Yes   | Complete   |  |
|                                | Kashanovichi Mobile IRBM Base            | Jul 76           | 9                          | --   | 3                     | --   | 1                      | --   | Yes  | 2   | Yes                                     | 1                                       | Yes                                   | 1   | Yes | 1                             | Yes   | Complete   | C-shaped hq/admin bldg in midstage of construction; Temporary construction support area being raised |
|                                | Mozyr Mobile IRBM Base Training Facility | Oct 76           | 9                          | --   | 3                     | --   | 0                      | --   | Yes  | 3   | Yes                                     | 1                                       | Yes                                   | 1   | Yes | 1                             | Yes   | Complete   |  |
| Postoyan Mobile IRBM Base      | Oct 77                                   | 9                | --                         | 3    | --                    | 0    | --                     | Yes  | 2  | Yes   | 1                                       | Yes                                     | 1                                     | Yes | 1   | Yes                           | Complete  | Temporary construction support area being raised                                       |  |
| Smorgon Mobile IRBM Base 1     | Apr 78                                   | 9                | --                         | 3    | --                    | 0    | --                     | Yes  | 2  | Yes   | 1                                       | Yes                                     | 1                                     | Yes | 0   | --                            | Complete  | SS-5 GSE bldg prob. being used in place of clerestory bldg                             |  |
| Smorgon Mobile IRBM Base 2     | Aug 79                                   | 0                | --                         | 0    | 1                     | --   | --                     | No   | 1  | No  | 0                                       | --                                      | 0                                     | --  | 0   | --                            | Construction continuing   |  |  |
| Rechitsa Prob Mobile IRBM Base | Sep 78                                   | --               | --                         | --   | --                    | --   | --                     | --   | 2  | Yes   | 1                                       | Yes                                     | 1                                     | Yes | 1   | No                            |   |  |  |
| Rechitsa Remote Site 1         | Aug 79                                   | 3                | --                         | --   | --                    | --   | --                     | Yes  | --   | --  | --                                      | --                                      | --                                    | --  | --  | --                            |   |  |  |
| Rechitsa Remote Site 2         | Aug 79                                   | 3                | --                         | --   | --                    | --   | --                     | Yes  | --   | --  | --                                      | --                                      | --                                    | --  | --  | --                            |   |  |  |
| Rechitsa Remote Site 3         | Aug 79                                   | 3                | --                         | --   | --                    | --   | --                     | Yes  | --   | --  | --                                      | --                                      | --                                    | --  | --  | --                            |   |  |  |
| Polotsk Mobile IRBM Base 1     | Oct 78                                   | 9                | --                         | 3    | --                    | 0    | --                     | Yes  | 2  | Yes   | 1                                       | No                                      | 1                                     | No  | 1   | No                            | Complete  | <div></div> & POL storage & fueling facility in midstage of construction               |  |
| Polotsk Mobile IRBM Base 2     | Aug 79                                   | 0                | 6                          | 0    | 2                     | 0    | --                     | No   | 0  | --  | 0                                       | --                                      | 0                                     | --  | 0   | --                            | Temporary construction support area in late stage of construction |  |  |

Red indicates changes since 1st cutoff date of the updated report.  
\*The former SS-7 ICBM complexes in the central and eastern USSR currently have at their RTPs; these areas consist of high tv. >bay, technical support, and clerestory buildings.



smaller canister has been seen at Drovyanaya, Postavy, Kozhanovich, Mozyr, Serpukhov, and Kapustin Yar. The larger one has been seen at Drovyanaya, Novosibirsk, Yurya, Konkovich, Mozyr, and Serpukhov. The presence of the canisters at these facilities suggests that the smaller canister may be for individual warheads and the larger one may be for the entire SS-20 payload package.

Field Training Exercises

15. (TSR) Nine SS-20 field training exercises were observed during the reporting period. The exercises were seen near Drovyanaya Mobile Bases 3 and 5, Drovyanaya RTP, Yurya SSM LP 4 ( ), and Kozhanovich SSM LP 1 ( ). Regimental exercises were seen near Drovyanaya Mobile Base 5, Drovyanaya RTP, and Yurya LP 4.

16. (TSR) The SS-20 field training exercise at Kozhanovich was identified on ( ) (Figure 7). This was the first observation of SS-20 field training in the Mozyr division. The equipment consisted of at least five probable SS-20 launch-related vehicles deployed under camouflage netting in two revetments and on a road. The launch position had previously been used by the SS-4 MRBM missile unit maintained at Kozhanovich. On imagery of ( ) a helicopter was seen approaching the exercise area from the direction of the Kozhanovich Mobile IRBM Base.



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Table 2.  
Mobile Missile-Associated Garages/Buildings at Soviet Test Centers\*  
This table is in entirety classified TOP SECRET RUFF

| Installation Name       | PRIMARY SS-16/20 GSE GARAGES |       |              |       |              |       |              |       |                          |       | OTHER MOBILE MISSILE ASSOC SUPPORT BLDGS |       |                                   |       |              |       |            |       | Remarks  |
|-------------------------|------------------------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------------------|-------|--|-------|-----------------------------------|-------|--------------|-------|------------|-------|--|
|                         | Single-Bay Garage            |       | 3-Bay Garage |       | 6-Bay Garage |       | 9-Bay Garage |       | 11-Bay Garage (86 x 18m) |       | 11-Bay Garage (66 x 26m)                 |       | Drive-In High Test Bay (20 x 20m) |       | Tech Support |       | Clerestory |       | Miscellaneous                                    |
|                         | Complete                     | Uncon | Complete     | Uncon | Complete     | Uncon | Complete     | Uncon | Complete                 | Uncon | Complete                                 | Uncon | Complete                          | Uncon | Complete     | Uncon | Complete   | Uncon |  |
| Kapustin Yar MSTC       | MAZ Rec/Instn Stor Area      | 0     | 0            | 0     | 0            | 2     | 0            | 1     | 0                        | 1     | 0  | 0     | 0                                 | 0     | 0            | 0     | 10         | 2     |  |
|                         | MAZ/IRBM Bldg/Trip Area      | 3     | 0            | 1     | 0            | 1     | 0            | 2     | 0                        | 1     | 0  | 0     | 0                                 | 1     | 0            | 0     | 0          | 5     | 1  |
|                         | General Support Area         | 0     | 0            | 0     | 0            | 1     | 0            | 1     | 0                        | 0     | 1  | 0     | 0                                 | 0     | 0            | 0     | 1          | 0     | 7  |
|                         | Launch Site 1C               | 1     | 0            | 0     | 1            | 0     | 0            | 0     | 0                        | 0     | 0  | 0     | 0                                 | 0     | 0            | 0     | 0          | 0     |  |
| Plesetsk MSTC           | Mobile ICBM Fac 1            | 6     | 0            | 0     | 0            | 0     | 0            | 0     | 0                        | 2     | 0  | 1     | 0                                 | 0     | 1            | 0     | 3          | 0     |  |
|                         | Mobile ICBM Fac 2            | 6     | 0            | 0     | 0            | 0     | 0            | 2     | 1                        | 3     | 0  | 1     | 0                                 | 0     | 1            | 0     | 0          | 2     | 9-bay garage uncon is still in foundation stage. |
|                         | ICBM Launch Test Site 6      | 0     | 0            | 0     | 0            | 0     | 0            | 0     | 0                        | 3     | 0  | 0     | 0                                 | 0     | 0            | 0     | 0          | 0     |  |
|                         | ICBM Launch Test Site 5      | 0     | 0            | 1     | 0            | 0     | 0            | 2     | 0                        | 0     | 0  | 1     | 0                                 | 1     | 1            | 0     | 3          | 2     |  |
| *No significant changes |                              |       |              |       |              |       |              |       |                          |       |  |       |                                   |       |              |       |            |       |  |

17. (TSR) Elements of an SS-20 mobile missile launch battalion were seen in a convoy formation at Novosibirsk on [ ] (Figure 8). The convoy was seen traveling on the open road toward Novosibirsk Mobile Base 2 and consisted of two empty SS-20 TELs, resupply vehicles and one MAZ-543 missile support van. This was the first time that SS-20 TELs, resupply vehicles have been seen out of garrison, in a deployed area, without camouflage.

#### Missile Test Center

##### Kapustin Yar Missile/Space Test Center SSM

18. (TSR) Considerable launch-related activity was observed at Launch Complex C, Site 1 where five SS-20 launchers reportedly took place. Activity seen within the SS-20 support facilities was normal, and only Crew Training Area 5 was occupied. An R-412 tower-mounted troposcatter antenna was seen field deployed for the first time near the General Support Area.

19. (TSR) Launch Site 1C: On [ ] seven canvas-covered SS-20 support vehicles and two canvas-covered SS-20 TELs, each with a canister, were parked in the launch area. One of the SS-20 TELs was positioned at the end of the monitoring positions at pad 1C-3. The TEL was positioned on an azimuth of approximately [ ] the usual alignment for an SS-20 TEL seen at this position. The launch site was again imaged on [ ] approximately ten hours before the reported launch of an SS-20 from the test center; the vehicle was in the same position. By [ ] one of the TELs had been moved from the launch site, and the second TEL was positioned at the pad 1C-3 monitoring position on an azimuth of approximately [ ]. The SS-20 support vehicles were connected by cables. Two possible cables connected the canvas-covered TELs to at least one of the support vehicles. No SS-20 activity was seen at the launch site on imagery of [ ]. Five SS-20 launchers were reported during the reporting period, all from Launch Complex C, Site 1; however, only three newly expended SS-20 canisters were seen discarded adjacent to pad 1C-2 as of [ ].

20. (TSR) General Support Area: On [ ] three canvas-covered SS-20 vehicles were seen parked adjacent to the small-arms firing range. Also, three canvas-covered SS-20 vehicles were parked on the road at the abandoned static test area east of the General Support Area at 48-32-36N 045-53-17E. On [ ] an erected R-412 tower-mounted TWIN-AR mobile troposcatter antenna was seen for the first time field deployed with SS-20 associated vehicles. The exercise was being conducted next to the firing range. The R-412 was last seen parked in the stowed position on the electronics hardstand south of the Bivozue Troop Training Area on [ ] but it was not observed on imagery of [ ]. Construction was continuing on the support and vehicle storage buildings in the General Support Area.

21. (TSR) Missile Receiving/Inspection Storage Area: Five probable SS-20 vehicles were seen loaded on flatcars on imagery of [ ]. At least 3 passenger/bunkers were also part of the rolling stock. The train was not present on [ ].

22. (TSR) SS-20 Crew Training Areas: Field-deployed SS-20 vehicles were seen in only one of seven crew training areas during the reporting period. One canvas-covered SS-20 vehicle was seen in Crew Training Area 4 on [ ] the area had been vacated. On [ ] the area was occupied by a line of ten canvas-covered SS-20 vehicles. Clearings were discernible in the snow for at least ten additional vehicles.

##### Plesetsk Missile/Space Test Center SSM

23. (TSR) All four mobile-associated bases (Mobile Facilities 1 and 2 and sites 5 and 6) and the SS-16 receiving and checkout area of the missile handling facility were seen at least once during the reporting period; however, no new activity was observed. On imagery of [ ] at launch site 5, construction had been resumed on the high, two-bay payload handling building foundation (Table 2).

24. (TSR) In general, all four mobile-associated bases appeared to be occupied. Steamplant operations and the roads and walkways which had been cleared of snow were evident on all coverages of these facilities. On [ ] small utility vehicles and personnel were discernible within the operations area of Mobile Facility 2.

The access roads serving the single-bay garages at Mobile Facilities 1 and 2 have not been seen plowed at the same time, indicating that some of the garages may be empty.

#### Single-Bay Garage Production

##### Bryansk Guided Missile Support Equipment Plant II

25. (TSR) During the reporting period, at least 27 garages were fabricated and at least 26 were shipped out of the plant (Table 3).

Table 3.  
Minimum Number of SS-20 Single-Bay Garages  
Fabricated at and Shipped from Bryansk Guided Missile  
Support Equipment Plant II  
This table is in entirety classified TOP SECRET RUFF

| Number of Days Between Usable Coverages            | Fabricated        |                    | Shipped           |                    |
|--|-------------------|--------------------|-------------------|--------------------|
|  | Complete Garages* | Incomplete Garages | Complete Garages* | Incomplete Garages |
| 64   | 5                 | 4-5                | 2                 | 7                  |
| 1  | 0                 | 0-1                | 0                 | 0                  |
| 23   | 3                 | 4-5                | 2                 | 1-2                |
| 1  | 0                 | 0                  | 2                 | 0                  |
| 4  | 0                 | 0                  | 0                 | 0                  |
| 31   | 0                 | 9-10               | 3                 | 5                  |
| 7  | 0                 | 2-3                | 0                 | 4                  |
| Total  | 8                 | 19-24              | 9                 | 17-18              |
| Garages fabricated & shipped, [ ] 27-32            |                   |                    |                   |                    |
| Garages fabricated & shipped, prior to [ ] 26-27   |                   |                    |                   |                    |
| 204-229  |                   |                    |                   |                    |
| Garages fabricated & shipped, since Apr 76 195-220 |                   |                    |                   |                    |
| 231-261  |                   |                    |                   |                    |
| 221-247  |                   |                    |                   |                    |

\*Includes two stationary end sections and eight sliding-roof sections.  
\*\*No imagery of the plant was acquired between [ ]

This table in its entirety is classified TOP SECRET RUFF

25X1

Table 4. (Continued)

|                              | NEW SS-16/20-RELATED ANTENNAS |                  |                |              |                  |                |              |                  |                |              | PRE SS-16/20 ANTENNAS |                |              |                  |                |              |                  |                |              |                  | Comments           |
|------------------------------|-------------------------------|------------------|----------------|--------------|------------------|----------------|--------------|------------------|----------------|--------------|-----------------------|----------------|--------------|------------------|----------------|--------------|------------------|----------------|--------------|------------------|--------------------|
|                              | Antenna Type                  | Antenna Location | Antenna Status | Antenna Type | Antenna Location | Antenna Status | Antenna Type | Antenna Location | Antenna Status | Antenna Type | Antenna Location      | Antenna Status | Antenna Type | Antenna Location | Antenna Status | Antenna Type | Antenna Location | Antenna Status | Antenna Type | Antenna Location |                    |
| Rad Xmt                      | A 2                           | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                | Reverents near RTP |
| Mobile Base 1                | A 2                           | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                | 25X1               |
| Mobile Base 2                | A 2                           | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                | 25X1               |
| Mobile Base 3                | A 2                           | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                | 25X1               |
| Mobile Base 4                | U                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                | 25X1               |
| Smolensk SRP Army            |                               |                  |                |              |                  |                |              |                  |                |              |                       |                |              |                  |                |              |                  |                |              |                  |                    |
| Postary MRBM Div             | A 1                           | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| CPBnk                        | A 2                           | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Postary MRBM Regt            | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| CPBnk                        | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | D                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base                  | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Smorgon MRBM Regt            | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| CPBnk                        | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | D                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 1                | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 2                | U                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Polotsk MRBM Regt            | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| CPBnk                        | D                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad X                        | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 1                | A                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 2                | U                             | Yes              | 3              | 5            | 1                | 7              | 4            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| **Polotsk/Dina MRBM Regt Xmt |                               |                  |                |              |                  |                |              |                  |                |              |                       |                |              |                  |                |              |                  |                |              |                  |                    |
| Orskov SRP Army              |                               |                  |                |              |                  |                |              |                  |                |              |                       |                |              |                  |                |              |                  |                |              |                  |                    |
| Vozhkovskaya Salada ICBM Cde | A 7                           | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| CPBnk                        | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Hg Sp1 Rcvr                  | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 1                | A 2                           | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 2                | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 3                | U                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 4                | U                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Vladimir SRP Army            |                               |                  |                |              |                  |                |              |                  |                |              |                       |                |              |                  |                |              |                  |                |              |                  |                    |
| Yuryev ICBM Cde              | A 2                           | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| CPBnk                        | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Rcvr                     | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Rad Xmt                      | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 1                | A 2                           | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 2                | A                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |
| Mobile Base 3                | U                             | Yes              | 5              | 1            | 2                | 2              | 2            | 2                | 2              | 1            | 2                     | 2              | 2            | 2                | 2              | 2            | 2                | 2              | 2            | 2                |                    |

\*See comments

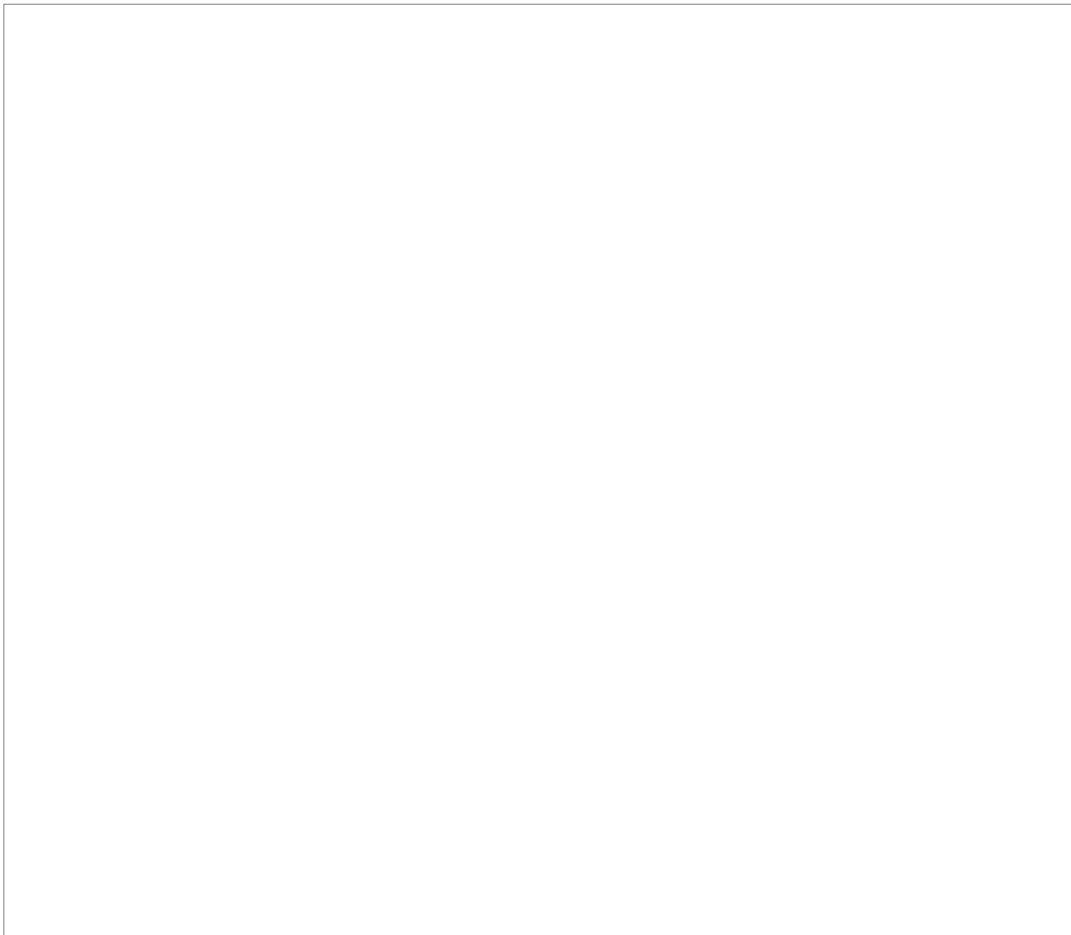
SS-16/-20 Command and Control

26. (TSR) Significant command and control activity was observed during the reporting period (Table 4). A probable command and control and communications system was identified at deployed SS-16/-20 bases in the eastern USSR; seven lattice towers were erected at the Verkhnyaya Salda ICBM Complex Command Post; and a C-shaped command and control/communications building was identified at Smorgon Mobile IRBM Base 2 and Polotsk Mobile IRBM Base 2.
27. (TSR) A probable command and control/communications system has been identified in the support areas of the 11 operational SS-20 bases in the Chita, Vladimir, and Orenburg SRF Armies. All of these command and control systems were completed prior to the bases becoming operational. This system has not been identified at six other SS-20 bases which were still under construction within these armies (the armies are all in the eastern USSR).
28. (TSR) The new communications system consists of a control building with a roof-mounted antenna array and two 28-meter-high lattice towers—previously identified as 30-meter-high lattice towers. The control building is connected by cable to the lattice towers. Generally, two types of roof-mounted antenna element configurations have been observed on the control buildings. One type of roof-mounted antenna array consists of two sets of antennas parallel to the long axis of the control building. One of the sets is comprised of six antennas which are evenly spaced along the centerline of the building. The other set consists of two antennas which are in line with the first set but are spaced differently. Both sets of antennas are connected by cable to a central feed point on the side of the control building (Figure 9). Nine antenna arrays of this type have been identified.
29. (TSR) The other type of roof-mounted antenna array consists of two sets of three antennas mounted parallel to the long axis of the control building. They are mounted along the centerline of the control building and are connected by cable to a central feedline (Figure 10). Two antenna arrays of this type have been identified.

30. (TSR) At Verkhnyaya Salda ICBM Complex/Bunker (Figure 11), seven lattice towers have been added. In the previous report, six of the footings for these towers had been identified. The control bunker was still undergoing modification.
31. (TSR) New C-shaped command and control buildings have been identified under construction at Smorgon Mobile Base 2 and Polotsk Mobile Base 2. These are the first two such buildings identified outside the Mozyr division and are only the fourth and fifth to be constructed at SS-20 bases. The buildings may function as regimental headquarters, since they have only been seen at mobile missile support bases which do not have regimental command post (CP) bunkers.
32. (TSR) Modification of the Droyanaya ICBM Headquarters Radio Communication Receiver/Bunker/Hard continued during the reporting period. The excavation of the complex receiver bunker is similar to that seen at the Postavy/IR/MRBM Headquarters Radio Receiver/Bunker/Hard in June 1979. In addition, one of the two lattice was taken down in February 1980. No additional changes have been observed in the antenna field.

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25X1



REFERENCES

IMAGERY

(TSR) All applicable KEYHOLE imagery acquired from [redacted] was used in the preparation of this report. 25X1 25X1

DOCUMENTS

1. NPIC [redacted] RCA-01/0002/80, *Soviet Mobile Missile Summary*, [redacted] (TSR), Jan 80 (TOP SECRET [redacted]) 25X1 25X1
2. DoD. DEFSMAC K/DQ/114-80, *Modified SS-20 Launched from the KYMTR on 31 January 1980 (TSZ-TK)*, 121720Z Feb 80 (TOP SECRET [redacted]) 25X1

\*Extracted information is classified SECRET.

RELATED DOCUMENTS

NPIC. [redacted] IAR-0045/79, *Soviet Mobile Missile Summary*, [redacted] (TSR), Oct 79 (TOP SECRET [redacted]) 25X1 25X1  
NPIC. [redacted] IAR-0089/79, *Rail Transshipment of Major Elements of an SS-20 Regiment at Kapustin Yar, USSR* (TSR), Dec 79 (TOP SECRET [redacted]) 25X1 25X1

REQUIREMENT

COMIREX A15  
Project 200009DA

(S) Comments and queries regarding this report are welcome. They may be directed to the following points of contact in the Soviet Strategic Forces Division, Imagery Exploitation Group, NPIC:

| Section of Report | Extension  | Black      | Green |
|-------------------|--|------------|-------|
| [redacted]        | Deployed Bases<br><br>Missile Test Centers<br>Production Facilities<br>Command and Control<br>Activity | [redacted] |       |

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